Castlemaine Naturalist

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Monthly newsletter of the Castlemaine Field Naturalists Club Inc.

Leopard Orchid *Diuris pardina* Photo - Noel Young

Base Camp, Broken Hill

Rita Mills

Our trip to the warmth of the semi desert areas started in such a way that I thought we'd dragged the local weather along with us. It was wet, cold, windy to start, with just a couple of sunny days - still with a cold wind, though, for our 10 days at Broken Hill. It has warmed up since we got to Cobar, but still a cool wind until today (23/8)

On the first sunny day we went out to the Living Desert Flora and Fauna Sanctuary 12 km north of Broken Hill, where we did the 2.5 km walk, ("takes 1 - 1.5 hours", only we took 3 hours) and enjoyed fantastic views across blue distances, plains, and valleys. Around us were red hills which were misted over by the yellow of Desert Seba, which from almost dying out during the drought, has come back in an extraordinary way according to the ranger on duty. We saw lots of Singing and Spiny-cheeked Honeyeaters, and quite a number of Red Kangaroos (wary) and a couple of Wallaroos ("not shifting for anyone"), and lots in flowers including the indigenous Notable Wattle *Acacia notabilis*, which though a bit past its best was still spectacular. There were even some Sturt Desert Peas.

The next sunny day, a few days later, we headed out to Menindie. I was advised by a local not to go out to the lakes if I wanted to see birds, but to go to the local "park", which I couldn't find at first, but that could be because its not really a park at all, but tracks by the river. Nevertheless, it was a great place for birding as there was shallow water lying around still, and plenty of bird life, despite the fact that the area looked quite degraded.

My bird list for the Menindie trip added up to 36 species, which is pretty good for me. Here it is -

On the way; Black Kite, Nankeen Kestrel, Australian Raven, Magpie, Emu, Brown Falcon. Then at Menindie itself I added Red-tailed Black Cockatoo, Willie Wagtail, Spiny-cheeked Honeyeater, White-necked Heron, Black-faced Cuckoo-shrike,

Great Egret, White-plumed Honeyeater, Red-rumped Parrots, Olive-backed Oriole - a family in the tree just near where we were parked - Great-black Cormorant, Red-kneed Dotterel, Striated Pardalote, Masked Lapwing, Little Grassbird - an excellent view as it darted along in the mud at the edge of the shallow water feeding as I sat in my folding chair just short of the mud. I wasn't even sure what it was until I looked it up in the bird book. There was also Black-fronted Dotterel, Pacific Black Duck, Coot, Grey Teal, Laughing Kookaburra, Little Crow, Peaceful Dove, White Ibis, Mallee Ringnecks, Grebes (Little, I thought), White-faced Heron, and, as we headed back, calling in at the lookout over the lakes on the way, I added Hardhead, Yellow-throated Miner, Black Falcon and Black-shouldered Kite. There were numerous Little Black Cormorants fishing at that spot too. A couple we were talking to there remarked that the last time they went through, about four years ago, instead of all the water we were looking at, there was dry grass.

Despite showers we also went out to Silverton several times, once to visit the Umberumberka reservoir, which I had been told was a great birding area. I was a bit disappointed, (though there were stacks of Little Corellas!) until I found a pair of Mulga Parrots feeding about 3 metres from me, and not worrying about me particularly. She eventually flew off for a while, but he continued to feed, and I got several photos of him. Later as we walked back from the dam wall he was back, but still no sign of her, but after a bit he stood up high, virtually on tiptoe and lifted his head, calling with a sort of "peeping" sound, and looking around. Eventually she answered him and flew up, greeted him and flew of again. I was rapt.

Other special birds at that spot was a family of Variegated Wrens, with two males, a female Red-capped Robin, and a Swamp Harrier. Add all that to wonderful scenery, and you can understand why I am enjoying this trip. I was supposed to be doing some painting, but I haven't done any yet, but I do have lots of photos and quite a few sketches! And be warned, this is only the first 10 days of our trip!

On the Bats and bat research

Noel Young

Professional Ecologist Craig Grabham was the speaker at last months meeting and gave us an interesting and detailed insight into those intrepid nocturnal creatures, the bat researchers, as well as the bats themselves. His talk covered bats from the general characteristics to the specific methods currently being developed to assist research into these enigmatic mammals. In Australia they are still under taxonomic review, and some new species have recently been recognised. They are easily split into two broad groups – the mega-bats (essentially the fruit eating Flying Foxes), and the much smaller essentially insectivorous micro-bats (the smallest of which weighs only 2.5 grams). Australia has about 84 species of micro-bats (759 sp. World-wide).

Although there are large gaps in the fossil record, micro-bats appear to have evolved from insectivorous mammals. Mega-bats may have evolved

separately, and may be closer to primates which share enhanced neural pathways for vision. One of the oldest fossils is from south east Queensland (55 million years old) and it already possessed echolocation similar to current species. Existing almost simultaneously there were the "proto-bats" which did not have echolocation.

While they favour the tropics, bats occur almost everywhere other than the polar ice-caps. Their ecological importance is notable. Flying foxes disperse seeds of many rainforest plants, and the micro-bats consume enormous numbers of insects, to the extent that they control insect populations in many areas. Research in the USA of one species of micro-bat found that each individual consumed up to 1000 insects in a night. (Most insectivorous bats eat a quarter to a half their body weight daily). In one State it was estimated that bats saved farmers $3 billion in pesticides.

In Australia farmers are being encouraged to re-establish bat habitats. In Victoria it is found that 80% of the diet of the Southern Freetail Bat is the Rutherglen bug, a major pest. Of major concern at present is the finding in the USA that micro-bats are being killed in significant numbers by wind turbines (a count of more than 10,000 in a year in one State alone).

Echolocation is a feature of the micro-bats. High frequency sound vibrations are emitted from the mouth and reflections gathered in large ears. Most of their signals are out of the range of human hearing, but Craig demonstrated a frequency converter which allows us to hear what they sound like. Although the calls are varied, each species has a characteristic pattern which makes the converter useful for species recognition. This pattern can also be graphed and examined on a computer, and we were shown examples of calls, which are sent as pulses, and typically speed up as the bat closes on a flying insect.

Finally, we were shown in some detail, the methods and equipment used by researchers to count, trap and track bats. Butterfly type nets can be used at restricted exits from roosts. Harp traps with vertical lines stretched to a frame cause the bat to slide down into a plastic trough. They are placed in a fly-way or near exits. Trip lines consist of several strands of fishing line stretched across a waterway – effective on a warm night when bats need to drink a lot. All bats are excellent swimmers, and will head for the bank where quick hands can pick them up.

High tech methods have become available in the last few years which make the task of researchers much easier. Apart from the echolocation detector already described, there are the radio tracking devices, night

vision binoculars, and radar equipment which can count bats very accurately. (Some of this technology has been recently declassified by the US military). More sophisticated echolocation detectors can now identify bat species "on the fly" and digitally record them along with a GPS location, all of which can be automatically logged to a spreadsheet. Vehicle mounted recorders allow "drive-by" surveys to be carried out – species counts can be done quickly over several kilometres of forest tracks. Clearly we are entering a new era which will result in vastly more knowledge of the distribution and habits of these important nocturnal animals and perhaps more significantly, any changes with time.

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Next meeting (September) the speaker will be **Dr. Mike Weston**, Senior Lecturer, Wildlife and Conservation Biology at Deakin University. His subject is birds, and the topic "Breeding success and failure" Don't miss it!

Burning the Box - Ironbark Forest

The Connecting Country talk on the 25th August by **Arn Tolsma**, Senior Scientist in Community Ecology at the Arthur Rylah Institute, attracted a lot of interest, and was attended by a number of CFNC members. The talk was based on a report for NCCMA and DSE that he co-authored in 2007, ***Ecological burning in box ironbark forests*** which can be downloaded – a link is on the Connecting Country website, together with a summary of the address. For those who cannot access the web, the CC summary is as follows:

> "Dr Arn Tolsma gave a deeply engaging account of fire history in Australia, and in particular the South Eastern corner of the country.
> He showed evidence from analysis of peat cores that over thousands of years until about 1800 the incidence of fire has varied according to climate, not from human action. Incidence of fire increased dramatically in the 19th century.
>
> In particular there is little evidence of widespread Aboriginal burning. Early settler witnesses of Aboriginal fires are extremely vague, and suggest that it was limited in extent, and largely confined to grassland and grassy woodland.
>
> On the subject of our region, he referred to the 1853 Selwyn map, which showed that river and creek lines were open and grassy, but ridge country wooded with scrubby box and stringybark: in other words, the idea that the forest was open country before settlement is false.

He showed that there is no strong evidence that Box Ironbark environments must have fire to regenerate. Using the concept of 'tolerable fire intervals' he argued that fires at intervals of a minimum of 20 and a maximum of 50 -100 years might be beneficial for these environments. Any use of fire should be carefully planned with very clear objectives established after site, vegetation and fire history analysis.

Dr Tolsma emphasised that he was speaking of fire as a management tool for the environment, a separate issue from the use of fire as a fuel reduction method. It is clear from his talk, however, that fuel reduction zones burned, say, every five years, will suffer ecological damage. This is consistent with the position of DSE fire managers, who frankly admit that 'asset protection zones' are 'sacrificial zones', ecologically speaking."

Publications to be held at Connecting Country

Every month, the Castlemaine Field Naturalists Club receives many newsletters and magazines from other similar naturalist organisations. These are displayed on the table at the back of each general meeting, and members have been encouraged to take them home to read. However, often they are not taken, and in the absence of a secure clubroom or other storage area, they are usually then thrown away. This is a great shame, as they are a tremendous source of useful and interesting flora and fauna information.

The CFNC business committee have just accepted an offer from Connecting Country to provide a space where recent previous newsletters and magazines can be kept, used and borrowed by CFNC members and other community members. They will be stored on the bookshelf at the Connecting Country office on the second floor of 233b Barker St in central Castlemaine (entrance from Templeton St, above the Good Table restaurant). The office is open on most weekdays from 9am to 5pm. If you are making the trip especially, it would be best to contact the office beforehand to make sure someone will be there (03 5472 1594 or info@connectingcountry.org.au).

Some of the magazines and newsletters that will be kept at the Connecting Country office will include:

- The Ballarat Naturalist
- Sun-Nat (newsletter of the Sunraysia field naturalists club)
- Whirrakee (newsletter of the Bendigo field naturalists club)
- Geelong Naturalist
- Castlemaine Historical Society newsletter

Upcoming Events

familynatureday.org
FAMILY FUN DAY
Sunday 25th September 11am-2pm
Victory Park Castlemaine
FREE BBQ (includes vegetarian)
FREE ACTIVITIES FOR THE KIDS
• native animals • face painting • jumping castle • make your own wings and badges to take home • Indigenous story telling • information and displays • music and entertainment
WING PARADE AT 1.30PM
PRIZES TO BE WON
meet RANGER ROO and SWIFTY THE PARROT
5472 1594 for more information or see the website familynatureday.org
CELEBRATING NATURE IN YOUR BACKYARD
BROUGHT TO YOU BY Connecting Country, Trust for Nature, Friends of the Box Ironbark Forests, Landcare, Parks Victoria, The Victoria Naturally Alliance, The Norman Wettenhall Foundation, mecu, the North Central CMA

Major Mitchell: Australia Felix Symposium and Exhibition

reflecting on 175 years since the 1836 expedition

Saturday 24 and Sunday 25 September 2011, 10am – 5 pm
Castlemaine Town Hall, 25 Lyttleton St

'the Expedition Exhibition' in evolution, by Eliza Tree opens Friday 23rd September, 5 – 7 pm
All Welcome

info: www.majormitchellexpedition.com

The next KABC roadside clean-up day

will be on Saturday 22nd October - organiser Geoff Harris
Meet at 9am at the corner of Pyrenees Highway and Golf Links Road

Please note that KABC rules prohibit anyone under 16 from working on the roadside. Sturdy footwear and gloves advisable. Reflective vests and garbage bags will be supplied

Brisbane Ranges Wildflower Show

Sunday October 9 9.30am – 4.30 pm

Anakie Hall, Staughton Vale Rd., Anakie

Organised by Friends of Brisbane Ranges Showcasing Victoria's Wildflowers

Includes wildflower bus tours (book on line) and
workshops on macro photography and Orchid identification

http://home.vicnet.net.au/~fobr/wildflowershow

Early Nancy *Wurmbea dioica*
photo – Noel Young

Wednesday Wildflower Walks

will commence on 14th September (the week following the meeting) and are planned to run for five consecutive weeks. Meet at 4pm sharp in the car park opposite the Castle Motel in Duke St.

For each Wednesday, an appointed leader will decide the best location at the time for wildflower display, and we generally spend about an hour checking it out.

Bring your Indigenous Plant brochure/ field guides, cameras

Observations

- Two wedge-tailed Eagles at Barkers Ck today – Geoff Harris
- Heard a Fantail Cuckoo in Farnsworth st recently, and saw a Blue faced Honeyeater near the Bendigo hospital – George Broadway
- Flock of 9 Pied Currawongs – Natalie de Maccus
- Pied Currawong flock also seen by George (and Noel Young – flock of 12 over Happy Valley) - "common winter visitor in flocks, usually very noisy"
- Recent reports of the occurrence of Brown Quail (rare) Rails and Painted Snipe in the Moolort Plains area - Chris Timewell
- On August 6th on the Goldfields track near Manchester Reef; a White eared Honeyeater, Horsefield's Bronze Cuckoo, and a male Scarlet Robin, and a Fantail Cuckoo calling on Forest Ck – Noel Young

Disclaimer: The opinions expressed in this newsletter are those of the contributors and not necessarily those of the club

Castlemaine Field Naturalists Programme
September 2011

Fri September 9 meeting: speaker MIKE WESTON – Shore birds; breeding success and failure

Sat September 10 field trip: To be announced

Wed September 14: 4 pm - first Wednesday Wildflower Walk
Leader: Denis Hurley

Fri October 14 meeting: speakers ANNE and NIGEL HARLAND
Galapagos and Ecuador

VISITORS ARE WELCOME AT CLUB ACTIVITIES

General meetings - (second Friday of each month, except January) are held in the Uniting Church (UCA) Hall (enter from Lyttleton St.) at 7.30 pm.
Field Trips - (Saturday following the general meeting) leave from the car park opposite Castle Motel, Duke Street at 1.30pm sharp unless stated otherwise. BYO morning and/or afternoon tea. Outdoor excursions are likely to be cancelled in extreme weather conditions. There are NO excursions on total fire ban days.
Business meetings - fourth Thursday of each month, except December, at Denis Hurley's; 20 Merrifield St., at 7.30 pm. All members are invited to attend.

Subscriptions for 2011
Ordinary membership: Single $27, Family $35
Pensioner or student: Single $24, Family $29
Subscription includes postage of the monthly newsletter, Castlemaine Naturalist

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